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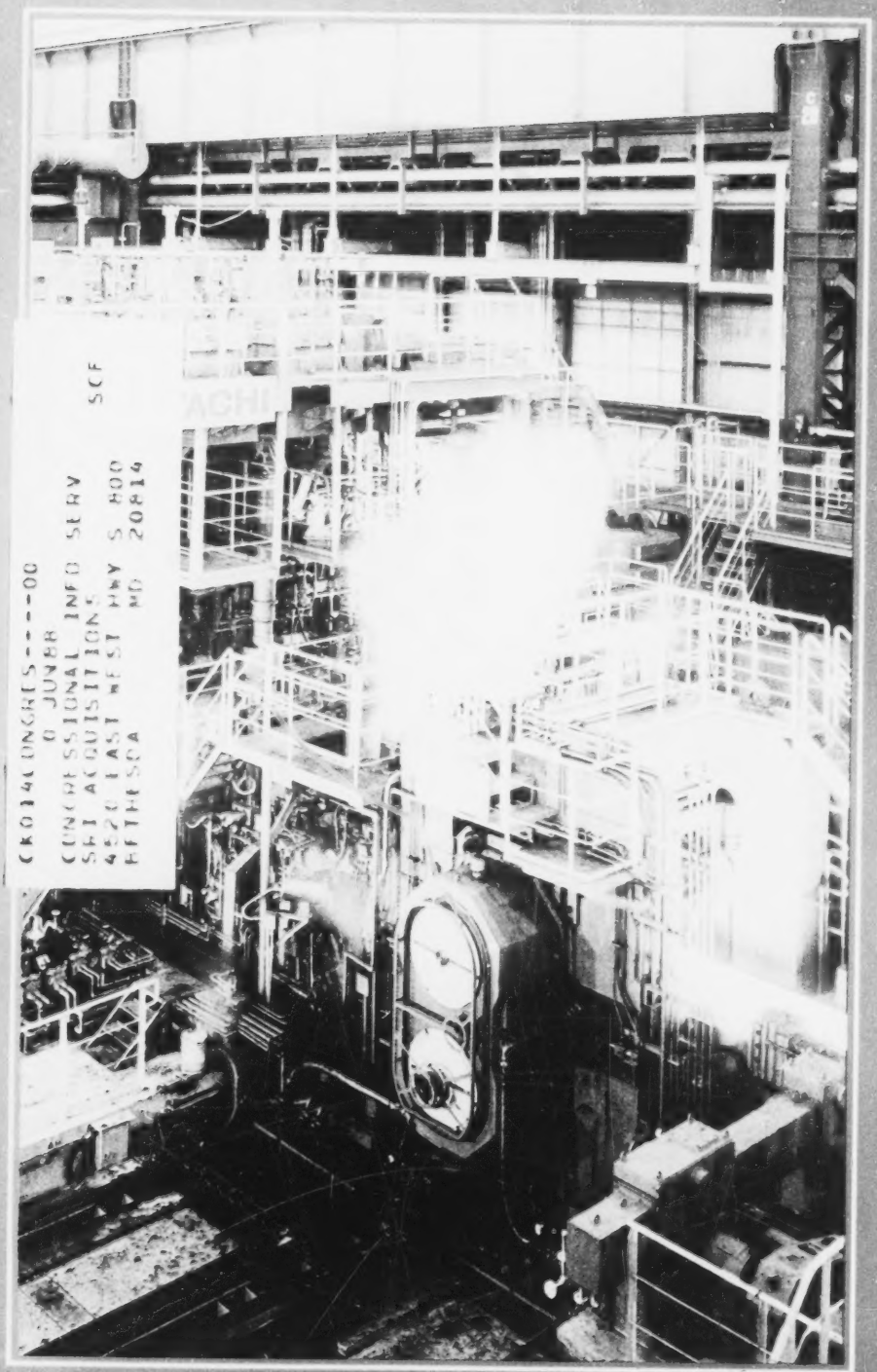
May 21, 1984



A NEW GENERATION OF HOT STRIP MILLS

Annual Steel Outlook: The Questions Remain Unanswered

Plus
In Plant Spotlight

And
The Hot Spot

MAY 21, 1984 VOL. 227, NO. 10

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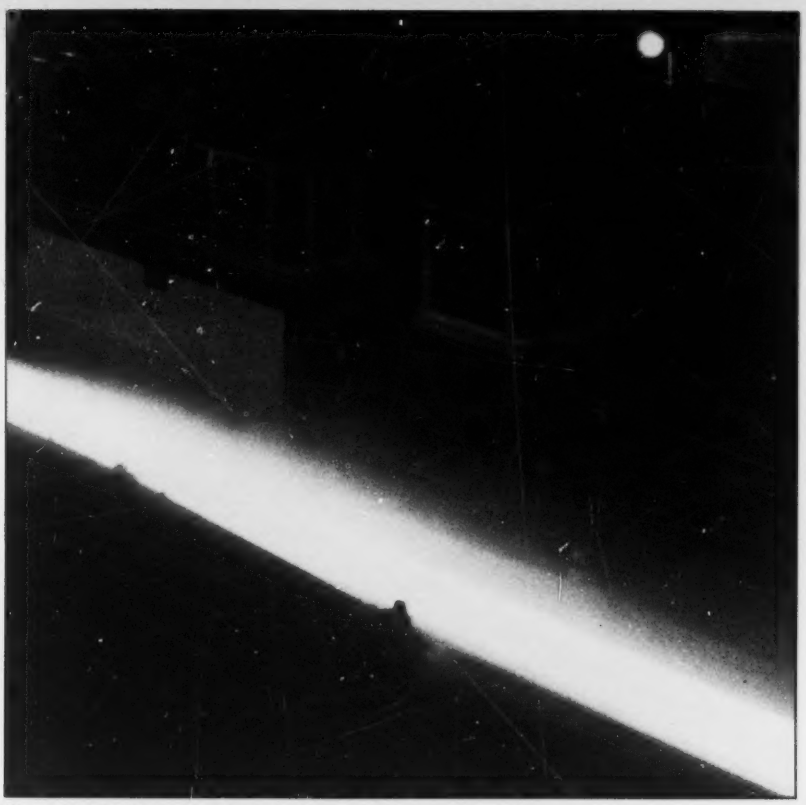

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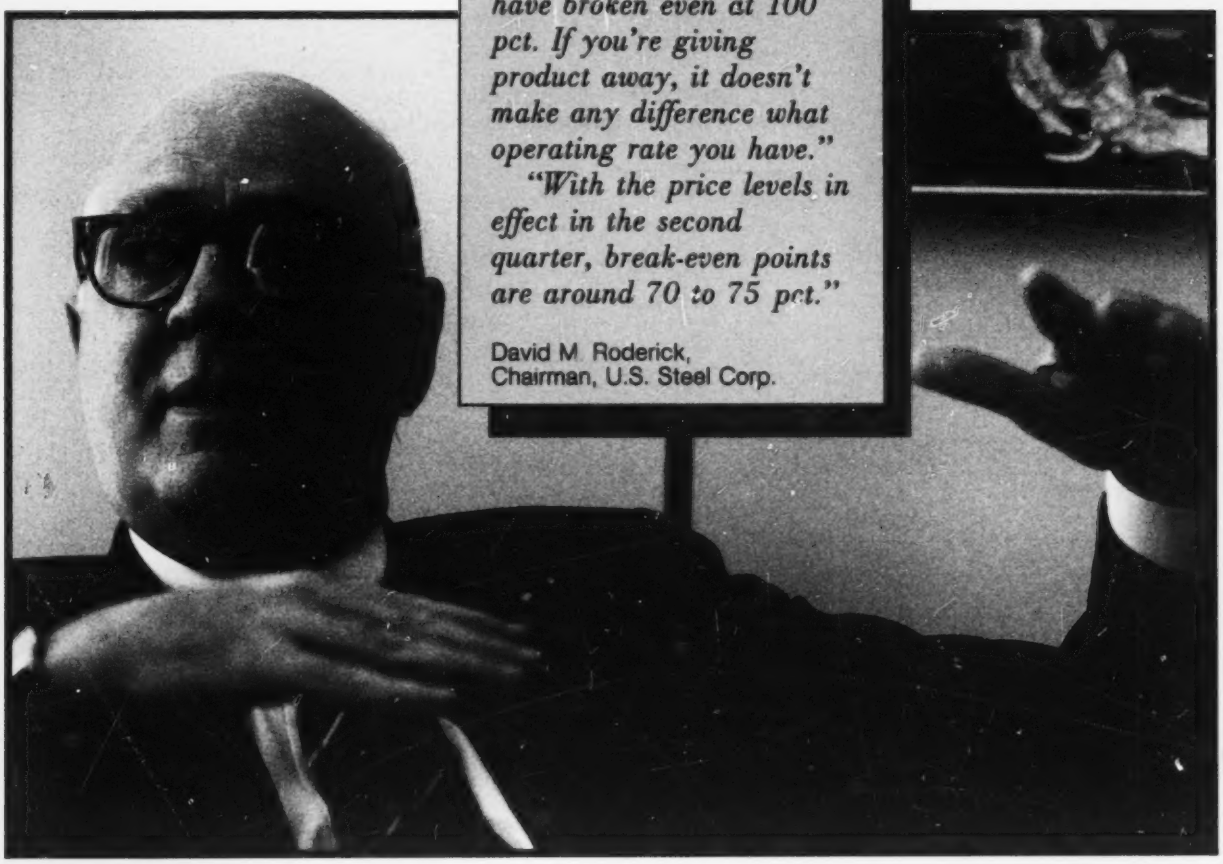


"Last year in the third quarter, no integrated company in the U.S. could have broken even at 100 pct. If you're giving product away, it doesn't make any difference what operating rate you have."

"With the price levels in effect in the second quarter, break-even points are around 70 to 75 pct."

David M. Roderick,
Chairman, U.S. Steel Corp.

STEEL:

WILL IT EVER BE THE SAME?

Steel has emerged from the past two years battered and bruised, but not beaten. It has had to shape up. The cause of its problems are known only too well, unfavorable market conditions, unfair trade practices, technological obsolescence, labor problems and bad management. If there is one benefit to all of this the recession provided the industry with what could be regarded as deferred profits.

BY GEORGE J. MCMANUS

In the first quarter of 1984, Inland Steel Co. had a net profit of $2 million.

"It's just a notch above the breakeven point to be sure," said Frank W. Luerssen, chairman and president of Inland, "but a very welcome turnaround following nine straight quarters of deficits."

Like Inland, the whole steel industry is slowly emerging from the devastation of 1982 and 1983. Those years saw steel lose nearly $6.8 billion.

As to the causes and cures of the steel sickness, there is general agreement on one point. "...much of our problem is rooted in unfair trade practices such as dumping and foreign government subsidization," said Adolph J. Lena, chairman of AL Tech Specialty Steel Corp. and also chairman of the specialty industry joint group.

"Either we act now to address these problems or we condemn the American taxpayer to forever bear the cost of the foreign export of their unemployment to our shores," said James E. Chenault, Jr., president of Lone Star Steel Co.

Apart from subtracting 17 million tons from domestic volume in 1983 and another 6 million tons in the first quarter of 1984, imports have contributed to the collapse of domestic steel prices.

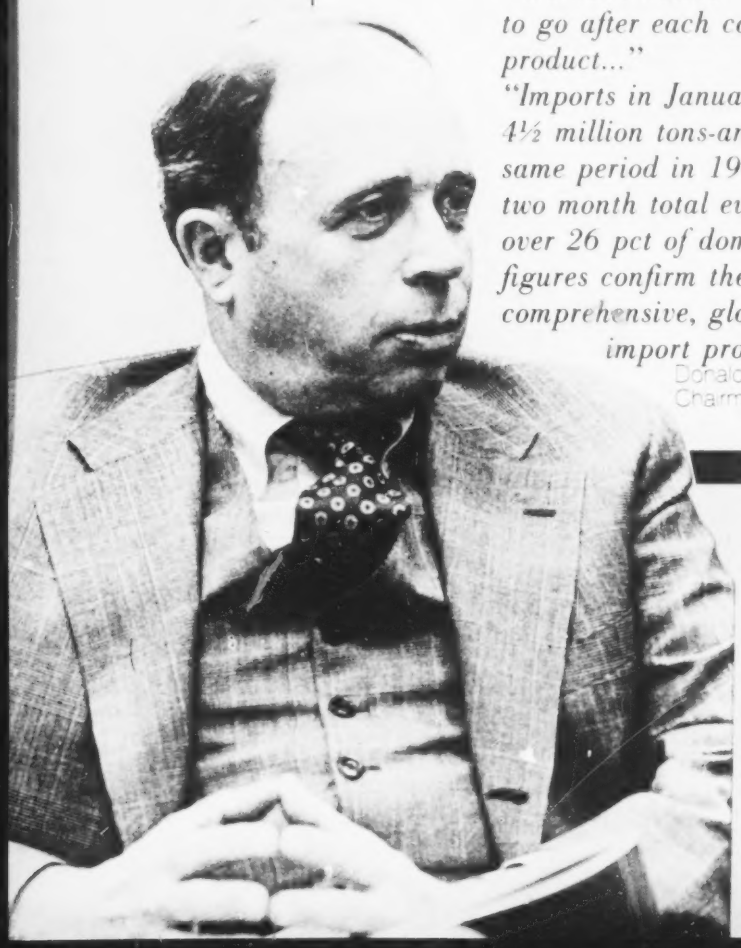
The extent of this collapse was shown in the fourth quarter of 1983 when National Intergroup, Inc., operated close to 100 pct and barely broke even on steel operations.

WILL IT EVER BE THE SAME?

STEEL INDUSTRY FORECAST 1984
How Far Will The Industry Come Back
(Thousands Of Tons)

	Total Domestic Consumption	+ Exports	Consumer Inventory + Change	− Imports	= U.S. Mill Shipments	Raw Steel Production	Steel Inventories (Million Tons) Consumer	Mill
1979	113126	2818	1837	17518	100263	136341	26.74	19.10
1980	98583	4101	−3340	15491	83853	111835	23.40	16.50
1981	97082	2904	8362	19898	88450	120828	31.76	18.70
1982	85280	1842	−8892	16663	61567	74577	22.87	13.40
1983	86029	1199	−2713	17061	67454	83379	—	—
1984	92436	1245	4936	19937	78680	102110	—	—
Percent Change								
1983/82	.9	−34.9	—	2.4	9.6	11.8	—	—
1984/83	7.4	3.8	—	16.9	16.6	22.5	—	—

Source: Armco Steel



"We have neither the time nor the resources to go after each country, product by product..."

"Imports in January and February totaled 4½ million tons-an 88 pct increase over the same period in 1983. This was the largest two month total ever recorded and represents over 26 pct of domestic consumption. These figures confirm the urgent need for a comprehensive, global solution to the steel import problem."

Donald H. Trautlein
Chairman, Bethlehem Steel Corp.

RAW STEEL PRODUCTION & STEEL SHIPMENTS
1976-1983
(In Thousands of Net Tons)

Year		U.S. Steel	Bethlehem	Armco	National	Republic	Inland	J&L*	Lykes*	Kaiser	Total
1976	Raw Steel Production	28,278	18,900	7,611	10,770	9,621	7,947	6,979	5,054	2,561	
	Steel Shipments	19,486	12,800	5,082	7,844	6,535	5,600	5,097	3,388	1,616	89,447
1977	Raw Steel Production	28,800	16,609	8,074	9,378	9,220	7,760	7,039	4,528	2,281	128,000
	Steel Shipments	19,700	12,405	5,633	7,621	6,657	5,586	5,381	3,391	1,588	91,147
1978	Raw Steel Production	31,300	18,808	8,513	10,461	9,996	8,553	7,340		2,348	125,333
	Steel Shipments	20,800	13,075	6,017	8,201	7,168	6,242	5,382		1,591	97,935
1983	Raw Steel Production	14,800	10,690	5,787	4,576	6,300	4,762	7,653		823	83,379
	Steel Shipments	11,300	8,740	4,324	4,034	4,846	6,306	5,811		1,054	68,000

*J&L and Lykes merged with LTV Corp.

The recession was not a happy thing for steel, but there could be some long term benefits. Viewed from a tax standpoint, the recession provided the industry with what could be regarded as deferred profits.

"Armco now has tax loss carryforwards that can shelter the next billion dollars in earnings from federal income tax," said Harry Holiday, chairman of Armco, Inc.

The recession brought a drastic pruning of facilities and people. Raw steel capacity was reduced by 25 million tons. Employment was cut from 396,000 in February of 1981 to 245,000 in February of 1984. Both hourly and salary forces were reduced 40 pct.

Along with technical moves, the rollbacks have brought decisive cost reductions. Inland has generated annual savings of over $200 million. "Moreover," said Mr. Luerssen, "a special breakeven strategy has targeted an estimated $212 million in further reductions in 1984."

Mr. Luerssen has lost none of his enthusiasm for the steel business. "...implicit in Inland's strategy is the total commitment to its basic business—steel. ...In our judgement, a company that's dedicated to the production of high quality steel products can remain a viable entity even if foreign producers continue to grab a significantly large share of the market."

Mr. Luerssen points out that diversification hasn't proved a cure-all. Armco's thinking on outside interests has changed somewhat as a result of the last two years.

"Diversification doesn't help when everything goes bad at once," said Mr. Holiday. He added that Armco still intends to have varied interests but that the mix will be different.

"Our diversification strategy now is to stick to those markets and operations we know well."

This strategy was influenced by problems in some of Armco's non-steel businesses. The company's insurance operations, which is being shed, had a pre-tax cost of $105 million in the first quarter of 1984.

U.S. STEEL

"When the first half numbers are available," said David M. Roderick, chairman of United States Steel Corp., "I think you're going to be surprised at the improvement."

Mr. Roderick said continuous casting is helping to boost efficiency but that the improvement is primarily a matter of people.

"The point is eliminating wasteful practices. What you're going to see in the U.S. is manhours per ton that are as low or lower than the Japanese and substantially lower than Europe."

Mr. Roderick cited the deep personnel cuts of U.S. Steel. "We have today in our steel operations 10,000 administrative employees," he said. "That's down about 40 pct from what it was at one time."

The financial impact of the rollbacks has been obscured by price cutting. "Last year in the third quarter, no integrated company in the U.S. could have broken even at 100 pct. If you're giving the product away, it doesn't make any difference what rate you have."

Mr. Roderick is impatient with people who discuss breakeven points without reference to prices. He indicates the steel price situation has improved somewhat since 1983.

"With the price levels in effect in the second quarter, break-even points are around 70 to 75 pct," he said. "At full book, break-even points are probably 60 to 65 pct."

WILL IT EVER BE THE SAME?

"I don't see any takeover at all. I see no sinister motives or hidden agendas."
Howard M. Love
Chairman, National Intergroup, Inc.

Further cost cuts are partly a matter of unilateral action by supervisors. "They have the right under the contract to man differently than the past."

In some situations, changes in union rules are needed. "You get into 2b and you have to work with your local union and try to come up with solutions," said Mr. Roderick.

Minimills

The Steelworker international may have to involve itself in the growing problems of wage inequities. "The union has a double standard," said Mr. Roderick. "They'll organize the minimill and give him $12 an hour. The integrated mill making the same product has to pay $21 an hour."

Mr. Roderick looks for increased use of mini-mill technology. "The growth of the mini-mills has been a direct function of limited capital," he said. He doesn't think growth has peaked.

If the wage problem is solved, he said, "I think you're going to see integrated mills in the mini-mill business." The Steelworkers should recognize that jobs are at stake in this matter.

"The bulk of the mini-mills are nonunion—probably two-thirds of them." A competitive agreement is "not a sacrifice, it's in their own self interest."

Presidential Elections

"I think Fritz Mondale does support the quota approach and will endorse the bill," said Mr. Roderick. "That's my belief and I have some basis for it.

"Clearly, the President (Mr. Reagan) is opposed to any quota legislation. He's said so."

Sen. Hart "would get people down in the oval office. I don't think he really has a position."

Mr. Roderick found it "rather humorous" that Sen. Hart's oval office approach called for the companies to reinvest income. "He doesn't seem to realize they've been doing that for years."

Another part of the Hart program was considered intriguing. "He would want a commitment from the unions—the workers—that their demands would stay within the limits of productivity..."

Imports

"Imports are a little puzzling at the moment. Obviously, they're surging in the first quarter. We see no reason the agreement with Europe is not going to hold. The Japanese historically have tended to respect a commitment once they take it on.

"The Third World—we've got a lot of cases out there. We're getting a surge in part because of those cases. You know the game everybody plays. Before the hammer strikes, they're going to make hay.

"We think imports will fall in each of the remaining quarters of the year. As our suits begin to take hold, they'll automatically cause some decline. I'm satisfied imports this year will be down slightly as a percent of our market."

Mr. Roderick spoke in mid-April just as Mexico and South Africa were announcing voluntary restraints for steel shipments to the U.S. Shortly afterward, U.S. Steel dropped its trade suits against Mexico.

"If a country wishes to take voluntary actions, I guess they have the right to do it. Then, we have to decide if the injury has been removed. As long as it's compatible with our laws, I don't object to any solution that limits the abuse to a tolerable level."

On a number of past occasions, U.S. Steel has dropped trade suits when various alternative remedies have been provided. The remedies have often proved unsatisfactory, but Mr. Roderick explains that the unfair trade suits don't offer a foolproof solution either.

"In these things, you win some and you lose some. If you don't make settlements like the European agreement, you win against four countries and you lose against three. And the three bring in more than the prior seven did."

Given the cost reductions, will domestic mills ever reach a point where foreign producers can't compete in the U.S. even with dumping and subsidies?

"We can compete right now with a good number of them on a cost basis," said Mr. Roderick. Domestic mills will never be able to compete against the kind of subsidies that have been available abroad.

"Since 1975," he said, "the European steel industry has recorded losses of over $20 billion. Governments have given them $25 billion in one way or another.

"If we had lost $20 billion since 1975, every steel company in the U.S. would be bankrupt. Did any of them disappear. Heck, No. The government made it up."

Supply & Demand

"I don't think it's going much higher but I don't think it's going a lot lower," said Mr. Roderick in mid-April of steel demand.

"We see the year as one where shipments for the second half will be slightly lower than the first half. We're saying the market for domestic producers will be about 78 million tons—almost evenly split."

Mr. Roderick looks for 1985 to be a "little stronger year.

"1982 was the most abnormal year we've had in steel since the Thirties."

While looking for better times, Mr. Roderick isn't sure the steel industry has stopped shrinking. "I don't think you can say that. It depends on how effectively we enforce our trade laws.

"How did we go from 160 to 135 million tons? Because we did not have the funds to replace the total capacity. We have capital starvation and that's been going on in this industry for 10 to 15 years."

The capacity reduction has been matched by personal cuts. U.S. Steel, for one, has had four major staff slices since the start of 1982.

"I'm not asking for more concessions. I'm saying don't take back what you've given."
Dennis J. Carney
Chairman Wheeling-Pittsburgh Steel

"We had no great plans for big reductions," said Mr. Roderick, "but everytime we see an opportunity to improve our efficiency, we're going to do it. I think you're going to see relative stability."

"I don't think we have lost one iota in our ability to produce quality products and ship quality products."

Mergers

U.S. Steel's proposed acquisition of National Steel was dropped after the Justice Department raised strong objections. "It wasn't thrown out," Mr. Roderick noted. It proved impossible to work out acceptable terms in the time available, he stated. National was unwilling to got through drawn-out negotiations and neither party was under pressure to merge.

"We don't need it for survival," said Mr. Roderick.

He has repeatedly stated that mergers are necessary if the domestic steel industry is to be restructured. Did the experience in the National case leave him with a negative view of steel?

"I don't think I'd put too much importance on that one event. We are committed to the steel industry. The Justice action can't be regarded as a long term policy. I think it was a bad decision. I don't think any of these things are irreversible."

U.S. Steel has not ruled out another steel acquisition. "If the attractiveness is there, we certainly would."

WILL IT EVER BE THE SAME?

BETHLEHEM

On Jan. 24, Bethlehem Steel Corp. and United Steelworkers of America joined in a petition which charged that domestic steel companies were being injured by imports.

Filed under Section 201 of the trade act, the petition asked that a 15 pct quota be imposed on steel imports for five years.

Section 201 cases differ from most trade actions in two ways. First, it is not necessary to show unfairness; the only question is injury. Secondly, the whole import problem is addressed; remedies such as quotas and tariffs can be applied to all products from all countries.

This last feature appealed to Donald H. Trautlein, chairman of Bethlehem Steel Corp. "We have neither the time nor the resources to go after each country, product by product...," said Mr. Trautlein.

The 201 complaint drew sharp criticism from the Reagan Administration. Bethlehem's action was "clearly contrary to the spirit of the ECC arrangement," said Commerce Secretary Malcolm Baldridge. He was referring to an agreement which limited European steel shipments to about 5 pct of the U.S. market.

The petition "placed the interests of the entire industry at risk," said Mr. Baldridge. Many domestic steel producers had misgivings on the same point. They feared the Europeans would use the 201 action as an excuse for scrapping the export ceiling.

Bethlehem argued that there was no reason for the Europeans to be upset inasmuch as the proposed quota would merely duplicate the 5 pct agreement already in effect.

In any case, said Bethlehem officials, the import problem was too serious for halfway measures. A broad remedy was urgently needed.

So far, Mr. Trautlein's strategy seems sound. The Europeans haven't junked their steel agreement. And recent statistics have documented the seriousness of the import problem.

"Imports in January and February totaled 4 1/4 million tons—an 88 pct increase over the same period in 1983," said Mr. Trautlein. "This was the largest two month total ever recorded and represents over 26 pct of domestic consumption.

Platform in D.C.

Among other things, the Section 201 petition provided steel producers with a platform in Washington. In early May, industry leaders aired their trade grievances before overflow hearings of the International Trade Commission (ITC).

This was part of a two-pronged assault. Already underway were Congressional hearings on the Fair Trade in Steel Act of 1984. Like the 201 petition, this called for a five-year quota program.

If the 201 case seemed redundant, it may not be. Whereas the legislative push can be stalled, there must be a decision on the injury petition. This is due in the early fall, only a month or two before the Presidential election.

The whole sequence established Donald Trautlein as a man with a mind of his own. Over the next two years, Mr. Trautlein's leadership qualities will be tested in addressing industry problems and those of Bethlehem.

To some extent, the problems are identical. Bethlehem is a full-line, integrated steel producer with only a minor amount of diversification. The company felt the full brunt of the industry's troubles over the past two years.

"During 1982 and 1983, Bethlehem's average annual raw steel production was only 10.6 million tons, a decline of 38 pct from the 1979-1981 average," said Mr. Trautlein. "Our average annual operating rate was only 48 pct..."

Coupled with depressed prices, the low volume resulted in a loss of more than a billion and a half dollars in two years. (There was a $1 billion writeoff in 1983). Another $54 million was lost in the first quarter of 1984.

While the deficits were largely due to external circumstances, Bethlehem isn't relying entirely on external changes for its salvation. A surprisingly large capital program includes $540 million for continuous casters at Burns Harbor and Sparrows Point.

A big push in going toward the upgrading of existing facilities. "We will

spend $60 million on computers and systems hardware in 1984," said Mr. Trautlein. "When you add this to our commitment of about 1,000 systems people, we are talking about an investment of well over $100 million a year in this area."

Bethlehem is making a special effort to promote positive attitudes among hourly workers and union officials. "We've taken some of our union leaders to visit competitors' plants, both in this country and abroad...," said Mr. Trautlein.

He views the steel market with qualified optimism. "Assuming that the rate of import penetration for 1984 as a whole is reduced and that the economic recovery continues at its current pace into 1985, we continue to project domestic industry shipments of about 80 million tons."

NATIONAL

"There's a very real dichotomy there," said Howard M. Love, chairman of National Intergroup, Inc.

"The Japanese are over here talking against the quota bill," said Mr. Love. National, he added, is very much in favor of a limit on steel imports.

"We sure need some control over what's happening. We told them we were going to support the quota bill."

Mr. Love told this to Nippon Kokan of Japan. NKK is becoming 50 pct owner of National Steel Corp., the subsidiary created from the steel operation of National Intergroup. The other 50 pct will be retained by Intergroup.

The business about quotas points up the potential for conflict in a Japanese-American steel partnership. Many domestic officials are uneasy about the resolution of basic conflicts. They see NKK's move as the opening wedge that will lead to full Japanese control of National Steel and possibly other U.S. mills.

Mr. Love dismissed the idea of a big take-over. "Oh, God. No," he said. "They don't want that. They see this as an example of Japanese-American cooperation. They think this should act as a model of how two countries in the same industry can get together for the mutual benefit of both.

"I don't see any takeover at all. I see no sinister motives or hidden agendas. We've known these people for a long time. We've had technical agreements that go back 15 years."

The two owners will be equally represented on the National Steel board. National Intergroup will have the top management spots. Mr. Love will be chairman and chief executive of the steel subsidiary. Robert D. McBride will continue as president of the steel company and headquarters will stay in Pittsburgh.

A specific concern of other producers is that NKK will funnel steel through National into the U.S. market. Mr. Love is perfectly candid in saying his company is now processing some foreign material.

"We're importing a small amount of slab from Europe," he said. Specializing in sheet products, National has been operating at 100 pct of melting capacity for some time. Rather than expand, the company is supplementing its raw metal with outside purchases.

This is in keeping with long-term strategy. National will no longer expand to meet peak demand. "In 1974," said Mr. Love, "we had one good year and built a lot of capacity."

That capacity proved superfluous when demand declined in 1976 and collapsed in 1982. National has trimmed off the surplus and now intends to gear itself for average markets.

"When business is strong as it is now, said Mr. Love, "we plan to buy intermediate products from wherever we can at the best possible prices..."

This policy has nothing much to do with the NKK partnership, he indicated. Nippon Kokan won't be shipping finished steel through the new company, he said, "nor will National Steel process semi-finished products made by NKK mills in Japan."

What NKK will be shipping National are cash and technical expertise. The agreement calls for National Intergroup to receive $273 million in cash and $19 million in notes. The money will come in handy.

"It's not burning a hole in our pockets," said Mr. Love. "On the other hand, we have a strategy of attempting to diversify."

Most Attractive

NKK, which had talked to Kaiser Steel and Rouge Steel, evidently found National the most attractive U.S. mill. National is 100 pct electric furnace or oxygen steelmaking. It can continuous cast about 70 pct of its steel.

National is "one of the most modern and efficient steel companies in the United States," said M. Kanao, president of NKK.

Nippon Kokan is one of Japan's technical powerhouses. "They're a premier producer of automotive steel in Japan," said Mr. Love. He looks for NKK to provide help in increasing yields, improving surface quality and in applying process controls.

A specific area for technical assistance is electrolytic coating. National has announced a big electrogalvanizing program. Nippon Kokan has been very active in this field. With a 50 pct stake in the new company, NKK will be an equal partner and have a strong incentive to promote its success.

"We want it that way," said Mr. Love of the ownership split. "We want their full commitment, as they want ours."

NKK brings financial as well as technical strength to the party. It is Japan's second largest steel company. Sales of $6.3 billion last year were double those of National Intergroup. Financial muscle will be needed because it's estimated National Steel will be spending $800 million in the next five years.

It turns out that National and NKK had been talking about some kind of venture before National was approached by United States Steel Corp. These talks were discontinued when U.S. Steel offered to buy 100 pct of National's steel operation.

The U.S. Steel purchase fell through when the Justice Dept. raised objections. "They wanted us to give up too much," said Mr. Love. "They imposed all sorts of conditions on us."

"The U.S. Steel offer was a hell of a fine offer," he said. "But it was a traumatic thing for the management." Pulling completely out of steel would have been a wrench. "After all, most of my career has been in the steel business."

WHEELING PITTSBURGH

"You're liquidating the steel industry," said Dennis J. Carney, chairman of Wheeling-Pittsburgh Steel Corp.

The Industry isn't making enough money to sustain itself, Mr. Carney in

WILL IT EVER BE THE SAME?

dicated. "The most serious problem is the pricing," he said.

He noted that steelmaking capacity had fallen from 160 million tons seven years ago to 135 million tons in 1984. He predicted a further reduction to 120 million tons in 1986.

"It may go as low as 90 million tons."

Mr. Carney suggested that these numbers be pondered by steel users and steel workers.

Mr. Carney doesn't think the industry's problems will be solved by mergers—at least, not the kind of mergers that have been proposed recently. He has criticized the LTV-Republic merger.

"We have decided we will file an objection," he said. "We can file an antitrust suit. Just because the Justice Department says it's legal doesn't mean it's legal."

Mr. Carney's thinking in the merger area is complicated if not contradictory. While he indicates the steel industry has been suffering from excessive price competition, he would not favor stifling competition by combining companies.

"Competition has been good in this country," he said. In both oil and steel, he said, the combines that were broken up in the Twenties and being reconstituted. The effect will be to reduce competition.

"Ten guys in the market are more competitive than three."

Mr. Carney doesn't believe mergers will make for greater efficiency. "Big isn't better in the steel business," he said. "You're going to make small failures into big failures."

In line with this, Mr. Carney feels the liquidation of steel capacity will be confined largely to the largest mills. "The big companies are going to lose it," he said. "They have the old facilities."

Under Mr. Carney, Wheeling-Pittsburgh has certainly installed more than its share of new facilities. These included a new rail mill, a new slab caster, and a new bloom caster. "Our ability to process up to 100 pct of our raw steel through these casters is unequaled in the United States today," he told shareholders.

At the same time, he seemed concerned that his company would be squeezed by the giant new combines. "You're going to have five companies controlling 80 pct of the market," he said of the sheet business. "Where am I with 4 pct?"

Where Wheeling-Pittsburgh may be is in the position of joining the trend rather than bucking it. "They're forcing companies to do things that I don't think are right," said Mr. Carney.

His thought on foreign ties are equally complex. Nisshin Steel Co., Ltd., has acquired 9.8 pct of Wheeling-Pittsburgh common stock and will share ownership of a new coating line. "Foreign mergers are the way to go," said Mr. Carney. He is quick to add that certain kinds of foreign links are questionable.

"Foreign mergers are fine but do you want to merge Nippon Steel with U.S. Steel? We would certainly oppose that."

Wheeling-Pittsburgh may oppose the proposed joint venture of Nippon Kokan and National Steel. "Nippon Kokan produced as much steel at U.S. Steel the last two years," said Mr. Carney. If the government opposed the U.S. Steel-National merger, he suggested, it would be consistent to oppose the Nippon Kokan acquisition.

Mr. Carney's thinking on foreign ties may reflect the resentment of an overlooked party. "I really expected they would pick the small companies."

JONES & LAUGHLIN

Steel producers are facing a novel version of zero defects.

"The auto companies must have perfect steel," explained James T. Bradford, Jr., executive vice president, Jones & Laughlin Steel Corp.

If steel defects cause problems in auto plants, Mr. Bradford said, the supplier receives zero payment.

This kind of market pressure has given rise to another concept. "Some people are starting to produce super-clean steel," said Mr. Bradford.

The term, clean steel, hasn't been around that long, but it's apparently due to be displaced by super-clean steel.

Being sought, said Mr. Bradford, are levels of cleanliness measured in parts per million and thousandths of a percentage point.

"That's a tough assignment on a mass basis."

To achieve extreme purity, Mr. Bradford suggested, will take a new generation of ladle refining systems. "There's probably going to be another wave," he said. This wave will entail vacuum degassing, arc heating and sophisticated control of inclusion shape, he said.

Jim Bradford speaks with authority on steel technology. He is president of the Association of Iron & Steel Engineers.

Until a few months ago, he headed research and engineering at J&L. His promotion to executive vice president means he will play a key role in the company formed by the merger of J&L and Republic Steel Corp.

The merger takes place at a time when the steel market is demanding the best technology. "When you made sheet thick and heavy, it didn't have to be formable," said Mr. Bradford. The steel going into Model T's could be formed with a sledge hammer, he pointed out.

Today's thin auto sheets must be formable and strong. They must also have regular profiles. "As you go thinner, you need good shape," said Mr. Bradford.

As you go into electrogalvanizing, he added, you need good shape because the coating lines operating with very tight clearances. A number of the sheet mills have already announced electrolytic lines. "We're doing some engineering," said Mr. Bradford of J&L's program.

The oil country market has gone through a very abrupt quality transition.

In the glory days of the early Eighties oil companies would take any kind of seamless.

Quality Emphasis

"Today, it must be world quality," said Mr. Bradford. J&L has modernized its seamless mill in Youngstown.

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FIRST QUARTER EARNINGS

STEEL SHOWS LIFE; NONFERROUS EDGES UP

Order books and price firmness lead steel out of the woods. In the nonferrous industry, aluminum and zinc are buoyed by the consumer-led recovery. Copper, nickel and moly continue to suffer.

BY GEORGE J. MCMANUS & ROBERT REGAN

Steel

"With the steel operations now running smoothly, our order books full and prices firming, we expect substantial improvement in our business in the second quarter," said Howard M. Love, chairman of National Intergroup, Inc.

"Armco is on the road to recovery from the severe slump of the past two years," said Harry Holiday, chairman of Armco, Inc. "Provided the economic expansion continues, we expect to be profitable from continuing operations for all of 1984."

Provided the economy keeps climbing and there is no auto strike and imports subside, steel producers will probably look back on the first quarter of 1984 as a turnaround for the industry.

Thirteen out of 20 steel companies made money in the quarter. Four out of the seven largest mills were profitable. In the first quarter of 1983, all seven were in the red.

Earnings were up partly because volume was up. Steel shipments rose about 25 pct from the first quarter of 1983. Dollar sales were up the same amount, indicating steel prices had at least stopped their downward slide. There was little or no upward movement in the price trend.

"Realized prices on first quarter shipments of flat-rolled products continued to be depressed...," said Raymond A. Hay, chairman of LTV Corp.

Despite lingering price problems and volume that was only fair, the first quarter saw some dramatic profit swings. United States Steel Corp. went from a loss of $118 million in the first quarter of 1983 to a profit of $171 million in the recent quarter. The big lift for U.S. Steel came from oil and gas, which went from an operating income of $56 million last year to $363 million in the first quarter of 1984.

Steel and related resources are now lumped together by U.S. Steel. The newly-formed segment had an operating profit of $4 million in the first quarter of 1984. That was an increase from a loss of $227 million in the first quarter of 1983.

"The various cost reduction programs and other actions implemented over the past two years are producing expected results," said David M. Roderick, U.S. Steel chairman. Mr. Roderick noted that U.S. Steel's long term debt has been reduced by $1.4 billion since the acquisition of Marathon Oil in early 1982.

Bethlehem Steel Corp. had an operating loss of $39 million in the first quarter. Nearly all of this was accounted for by basic steel production. The loss was less than a third of the 1983 operating deficit, but in both years, inventory changes helped.

Bethlehem looks for the heavy end of the steel product line to benefit from rising activity in construction, machinery and energy. If markets and prices improve, "Bethlehem should return to profitability in the second quarter," said Donald H. Trautlein.

Inland Steel Co. moved into the black with a net profit of $2 million in the first quarter. That compared with a loss of $40 million in the first quarter of last year.

Somewhat surprisingly, Inland's operating profit on steel fell from $30.7 million in the fourth quarter of 1983 to $9.6 million in the first quarter of 1984. Dollar sales were down slightly from the fourth to the first quarter.

Republic Steel Corp. and LTV Corp. both lost money in the first quarter of 1984. Republic had a net loss of $36.7 million in the first quarter of 1984. That was up slightly from the first quarter of 1983, but Republic seemed to be righting itself.

"Our operating results improved progressively in each successive month of the quarter and contributed to a modest profitable result in March," said E. B. Jones, Republic chairman.

Republic shipped more than 1.4 million tons in the first quarter. The company's volume was up a full 40 pct from the first quarter of 1983. Mr. Jones noted that Republic had improved its market share over both 1983 and 1982.

LTV had a net loss of $29 million. That was down from a loss of $77 million in the first quarter of 1983. LTV's steel business had an operating loss of $27.4 million, down from $87.3 million in the first quarter of 1983.

One happy note in the first quarter picture was the $9.7 million profit of Weirton Steel Corp. So far, Weirton seems to be making a success of employee ownership.

Additional profit makers were: Cyclops which posted a $2.37 million profit compared to a loss of $2.49 million in the first quarter of 1983; Interlake with a $6.87 million profit as against a profit of $880,000 in last year's first quarter. Carpenter Technology also boosted its profits to $11.35 million from a profit of $7.28 million over last year's similar period. Further, Copperweld, Quanex, Florida, Eastmet and LaClede also posted increased earnings during the first three months of 1984.

Nonferrous

The seemingly "one-note" business recovery nudged profits and sales of

(Cont. on p. 62)

STEEL'S P/L PICTURE BRIGHTENS

1984 1ST QUARTER PROFIT REPORT (In Millions of Dollars)

		EARNINGS			SALES		
	1984 E/S	1st Quarter 1984	1st Quarter 1983	Pct Change	1st Quarter 1984	1st Quarter 1983	Pct Change
USS	3.5	$171.00	$(118.00)	—	$4,836.00	$3,864.00	+25%
BETHLEHEM	—	(54.60)	(22.50)	—	1,334.80	1,119.30	+19%
ARMCO	5.2	56.30	(128.40)	—	1,087.00	987.90	+10%
NATIONAL	1.0	7.61	(35.40)	—	774.44	777.66	−0.4%
REPUBLIC	—	(36.68)	(34.85)	—	827.45	573.49	+44%
INLAND	0.2	2.00	(19.99)	—	878.42	669.61	+31%
LTV	—	(29.00)	(77.20)	—	1,407.00	898.90	+56%
TOTAL	1.0	116.63	(436.34)	—	11,145.11	8,890.86	+25%
CYCLOPS	0.8	2.37	(2.49)	—	291.56	223.15	+31%
WEIRTON	3.4	9.68	—	—	283.13	—	—
WHEEL-PGH	—	(4.94)	(23.88)	—	258.87	172.72	+50%
INTERLAKE	2.9	6.87	0.88	+681%	236.99	197.90	+20%
KAISER**	—	(422.80)	2.70	—	227.00	391.10	−42%
CARPENTER	7.8	11.35	7.28	+56%	146.44	109.86	+33%
COPPERWELD	2.7	3.18	(5.20)	—	118.38	72.77	+63%
QUANEX	—	1.27	(4.26)	—	94.73	61.92	+53%
LUKENS	—	(2.54)	(4.47)	—	91.06	81.22	+12%
FLORIDA	5.1	3.65	(1.15)	—	71.63	58.04	+23%
EASTMET	2.3	1.62	(2.52)	—	70.29	40.93	+72%
LACLEDE	3.2	1.87	1.37	+36%	58.47	46.04	+27%

**Full Year Figures

NONFERROUS SCORES IN FIRST QUARTER

Millions of Dollars

( ) = Denotes Loss

	EARNINGS			SALES AND OTHER REVENUES		
	1st Q 1984	1st Q 1983	Pct Chg.	1st Q 1984	1st Q 1983	Pct Chg.
ALCAN	$83.0	($12.0)	—	$1,431.0	$1,245.0	+14.9
ALCOA	97.8	(14.3)	—	1,483.3	1,142.2	+29.9
AMAX	8.2	(48.7)	—	646.0	612.7	+5.4
ASARCO	(31.1)	16.2	—	398.6	352.7	+13.0
BRUSH WELLMAN	10.1	5.2	+94.2	80.6	58.1	+38.7
CABOT CORP.	25.2	21.0	+20.0	467.9	405.8	+15.3
CALLAHAN MINING	1.3	1.1	+18.2	6.4	6.7	−4.5
COMINCO	4.5	(19.0)	—	371.1	265.8	+39.6
FREEPORT MCMORAN	22.1	21.1	+4.7	202.7	204.2	−0.7
HOMESTAKE MINING	6.3	12.5	−49.6	61.7	67.7	−8.9
INCO LTD.	(35.1)	(81.9)	—	371.0	276.0	+34.4
KAISER ALUMINUM	14.6	(28.8)	—	814.1	646.3	+26.0
MARTIN MARIETTA	24.8	13.8	+79.7	1,068.0	801.9	+33.2
NEWMONT MINING	11.8	18.8	−37.2	177.6	147.3	+20.6
OLIN CORP.	27.2	22.5	+20.9	526.5	473.1	+11.3
PHELPS DODGE	(5.0)	(3.9)	—	260.3	240.9	+8.1
REVERE COPPER	13.6	(2.1)	—	158.8	121.5	+30.7
REYNOLDS METALS	22.3	(80.2)	—	944.9	748.9	+26.5
VULCAN MATERIALS	6.7	(0.03)	—	202.4	154.6	+30.9

Aluminum Co. of America: Net for the '84 period includes gains of $8.7 million from joint venture agreements and $5.3 million from a real estate transaction. **Amax Inc.:** Net for '84 period includes $7.7 million tax-loss carry-forward. **Cominco Ltd.:** Canadian funds. **Homestake Mining Co.:** Net for '83 period includes a $5.8 million write-off of a mine investment. **Kaiser Aluminum & Chemical Corp.:** Results for '83 period include $22.5 million gain from renegotiation of a natural gas contract and $22.2 million from rebate of energy charges. **Phelps Dodge Corp.:** Net loss for '84 period includes a nonrecurring gain of $25 million from settlement of litigation. **Revere Copper & Brass Inc.:** Net for '84 period includes $4,386,000 tax-loss carry-forward. **Reynolds Metals Co.:** Loss for '83 period includes $8.3 million debit cumulative effect of an accounting change on a prior period.

(Cont. on p. 67)

many leading nonferrous metals companies higher in the first quarter of 1984. The consumer-led recovery, still most evident in the automotive sector, continued to be kinder to aluminum and zinc than it was to copper, nickel, molybdenum and other metals tied too closely to capital goods markets.

The aluminum companies, in the red for the most part in the first quarter last year, were helped by higher prices and increased shipments, but profits still were below normal rates of return on sales of investment. The industry's incoming order rate shows signs of slowing up in the latter weeks of March and this continued well into April, particularly for flat rolled products, including can stock. April bookings looked to be about 12-13 pct under average first quarter business. Aluminum ingot prices on the free market continued to soften as production climbed and producers' stocks increased.

Tight production schedules weren't much help to the copper producers in the first quarter. Copper prices were down from the average for the initial 1983 period and the companies got no help from such important byproduct items as silver and gold, prices of which aren't doing any better. Speculative interest remains at a minimum because of large hedge market warehouse stocks and the lack of any signs that the consumer market boomlet has begun the spill over into capital goods. Domestic producers still are waiting to see if their bid for import quota protection is having any significant effect on production schedules in South America and Africa.

Domestic copper consumption is up, but the U.S. companies say the extra sales are going to imported material. Asarco Inc., for instance, asserted recently that foreign producers got it all last year, when U.S. consumption went up 7 pct and copper imports went up 70 pct. Asarco Chairman Ralph L. Hennebach noted that low copper prices are retarding expenditures by privately-owned producers for necessary capital improvements while government-owned producers push capacity expansion projects under umbrellas held over them by the international lending agencies.

Phelps Dodge said its wider first quarter loss reflected substantially lower copper prices and higher units costs. The company's sales of mined copper were up 6,900 tons, or 10.2 pct, to 74,600 tons. Mine production was up 17,300 tons, or 29 pct, to 76,900 tons. The company's Ajo, Ariz. mine was reopened in February 1983 and the Tyrone, N.M. mine was reopened in May 1983.

Aluminum Co. of America said higher shipments and a better product mix contributed to record sales and operating revenues in the first quarter. Charles W. Parry, chairman, said ingot prices were softening toward the end of the period, reflecting an imbalance of supply and demand and, although the company was operating its domestic smelters at virtual capacity, it had to supplement its primary output with purchases on the international market.

Mr. Parry also said the rate of economic recovery was expected to slow to a more sustainable level but the federal deficits and recent interest rate trends have generated concern about sustainability.

Alcan Aluminum Ltd.'s first quarter shipments were down slightly, but the impact was more than offset by a shift to more fabricated products and less unremunerative ingot. David M. Culver, president and chief executive officer, said recovery in ingot prices had begun to be reflected in better prices for mill products.

Reynolds Metals Co. said it looks for a nine pct gain in industry shipments this year, plus improvement in its rate of return from operating efficiencies and higher capacity utilization. Kaiser Aluminum & Chemical Corp., which also moved out of the red in the first quarter, said its aluminum operations continued to be profitable in the second quarter. The aluminum division had a pre-tax gain of $15.1 million in the first quarter, compared with a pre-tax loss of $63.7 million in the same 1983 period. Cornell C. Maier, chairman said, Kaiser Aluminum "expects to be profitable in the second half of the year, but the amount of earnings we will record depends, to a great extent, upon continued economic expansion, further improvement in both primary and fabricated aluminum prices, and better performances from our non-aluminum activities." □

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National High Blood Pressure Education Program
National Heart, Lung, and Blood Institute
U.S. Department of Health and Human Services

PRICE & PRODUCTION DATA

(Effective May 7, 1984)

Steel production by districts, thousands of tons (000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
North East Coast	248	258	256	216
Buffalo	11	12	11	31
Pittsburgh	298	317	293	212
Youngstown	119	121	123	102
Cleveland	146	151	144	123
Detroit	177	178	178	142
Chicago	517	561	567	463
Cincinnati	109	118	126	97
St. Louis	84	89	85	72
Southern	225	235	226	141
Western	86	88	90	84
U.S. Production	2,020	2,128	2,099	1,683

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports. Rail transportation, handling and unloading may be charged to the account of the buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural).....gross-ton 80.50-86.9*
Mesabi, regular-unscreened .....gross-ton $32.53
Mesabi, non-bessemer.....gross-ton $30.03-31.53**

*80.50¢—Pickands Mather as of 1/27/81.
86.9¢—U. S. Steel as of 3/15/82. Cleveland-Cliffs as of 2/26/82, Oglebay Norton as of 3/25/82, and Hanna Mining as of 2/26/82.
**Effective 8/1/83.

STEEL PRODUCTION, COMPOSITE PRICES

(Effective May 7, 1984)

U.S. Steel Production	Last Week	Two Weeks Ago	To Date 1984	To Date 1983
Net tons, in thousands	2,020	2,128	35,523	26,879
Capability Utilization Rate	77.8	81.9	76.3	51.6

Composite Prices	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (¢/lb.—eff. 2/13/84)	26.939	26.939	26.939	26.217
Pig Iron* * (Net ton=2000 lbs.)	$213.00	$213.00	$213.00	$213.00
Scrap No. 1 hvy.* * * (Gross ton=2240 lbs.)	$ 89.50	$ 90.17	$ 90.17	$ 66.83
No. 2 bundles	$ 60.83	$ 60.83	$ 60.83	$ 46.50

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh .	$100.50	$100.50	$100.50	$ 68.50
No. 1 steel, Philadelphia ..	82.50	84.50	84.50	64.50
No. 1 steel, Chicago.....	85.50	85.50	85.50	67.50
No. 1 bundles, Detroit	92.50	92.50	89.50	69.50
Low Phos., Youngstown ..	98.50	96.50	96.50	72.50
No. 1 mach'y cast., Pgh...	79.50	79.50	79.50	74.50
No. 1 mach'y cast., Phila	100.50	100.50	100.50	98.50
No. 1 mach'y cast., Chi..	117.50	117.50	114.50	108.50

*Finished Steel Composite: Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.
* *Pig Iron Composite: Based on average prices for basic and foundry pig iron at representative producing points within the U.S.
* * *Steel Scrap Composite: Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

NONFERROUS PRICES

(Effective May 7, 1984) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum	81.00	76.00-81.00	9/27/83
Copper (C)	70.00-72.00	71.00-72.00	5/7/84
Lead	25.00-28.00	26.00-28.00	5/3/84
Magnesium Ingot	143.00	138.00	1/3/84
Nickel	329.00	350.00	11/25/81
Titanium Sponge	555.00-585.00	555.00	4/29/82
Zinc	52.00-53.00	53.00	5/3/84

ALUMINUM: 99.5%. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig, delivered. NICKEL: electro., Port Colborne, Canada. ZINC: high grade.

Antimony, American Laredo, Texas . $2.00
Beryllium-aluminum 5% Be, per lb. contained Be $215.00
Beryllium-copper, per lb. cont. Be $130.00
Beryllium 97% powder 200 ..... $178.00
Bismuth, ton lots ..... $1.65-$1.80
Cadmium, ton lots $1.50
Calcium, ton lots, crown $3.50
Chromium, 99.8% $3.75
Cobalt, 99%, cathode $12.50
Gold per troy oz. $374.50
Indium, dollars per troy oz. ..... $2.50-$3.60
Iridium, dollars per troy oz. $600
Magnesium sticks, 10,000 lbs. $1.97
Mercury, per 76-lb. f.o.b. N.Y. ... $325-$335
Molybdenum, lb. tech. moly oxides, 20 lb. MO can $6.85
Nickel oxide sinter at U.S. points of entry $3.12
Palladium, per troy oz. $140
Platinum, per troy oz. $475
Rhodium, per troy oz. $600.00
Silver ingots, per troy oz. $8.67
Vanadium $6.00
Zirconium sponge ..... $12.00-$17.00
(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb, EX-SMELTER, based on daily market in Penang in Malaysian dollars per kilo.)

April 30—577.42
May 1—Holiday
May 2—577.16
May 3—577.29
May 4—577.42

Scrap Prices
Brass Mill Scrap

(Cents per lb; over 20,000 lbs. add 1¢ per lb)

	Solids	Turning
Copper	67½	63½
Yellow brass	62	60½
Red brass	63½	62
Comm. bronze	64⅛	62½
Mang. bronze	63½	55¼
Free cutting rod ends	58	59

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	62
No. 2 copper wire	53
Light copper	44

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	58
No. 2 copper wire	49
Light copper	40
No. 1 composition	58
No. 1 comp. turnings	56
Hvy. yellow brass solids	39
Hvy. yellow brass turnings	36
Radiators	48

Aluminum

New mixed clips	49	—50
Old sheet	47	—48
Old cast	47	—48
Clean dry borings	48	—49

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	45	—46
Mixed L.C. clips	41	—42
Old sheets and cast	36	—37
Borings and turnings	28	—29
Duraluminum clippings	28	—29

Copper and Brass

No. 1 copper wire	43	—44
No. 2 copper wire	37	—38
Light copper	35	—36
Radiators	35	—36
No. 1 composition	45	—46
No. 1 composition turn'gs	42	—43
Cocks and faucets	31	—32
Clean heavy yellow brass	29	—30
Brass Pipe	30	—31
New soft brass clippings	46	—47

Lead

Heavy soft lead	9	—10
Whole batteries	3	— 4
Type metal	15	—16
Electrotype	13	—14

Nickel

Nickel solids	115	—125
Nickel rod ends	115	—125
Nickel sheets, clips	115	—125
Nickel turnings	55	— 65

Zinc

New zinc clippings	18	— 19
Old diecast zinc	14	— 15

EFFECTIVE MAY 7, 1984

(Effective May 7, 1984) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of *Iron Age* editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	$100.00 to	$101.00
No. 2 hvy. melting	90.00 to	91.00
No. 1 dealer bundles	118.00 to	119.00
No. 1 factory bundles (auto)	119.00 to	120.00
No. 2 bundles	59.00 to	60.00
No. 1 busheling	117.00 to	118.00
Machine shop turn.	16.00 to	17.00
Shoveling turnings	54.00 to	55.00
Cast iron borings	53.00 to	54.00
Low phos. punchings plate	119.00 to	120.00
Heavy turnings	90.00 to	91.00
No. 1 RR hvy. melting	113.00 to	114.00
Rails 2 ft. and under	125.00 to	126.00
Scrap rails, random lgth.	109.00 to	110.00
RR specialties	124.00 to	125.00
No. 1 machinery cast	79.00 to	80.00
Cupola cast	72.00 to	73.00
Heavy breakable cast	30.00 to	31.00
Stainless		
18-8 bundles and solids	600.00 to	610.00
18-8 turnings	500.00 to	510.00

Chicago

No. 1 hvy. melting	$ 85.00 to	$ 86.00
No. 2 hvy. melting	81.00 to	82.00
No. 1 dealer bundles	116.00 to	117.00
No. 1 factory bundles (auto)	116.00 to	117.00
No. 2 dealer bundles	64.00 to	65.00
No. 1 busheling	107.00 to	108.00
Shredder scrap	103.00 to	104.00
Machine shop turn.	46.00 to	47.00
Mixed bor. and turn.	47.00 to	48.00
Shoveling turnings	56.00 to	57.00
Cast iron borings	57.00 to	58.00
Low phos. forge crop	122.00 to	123.00
Low phos. punchings plate ¼ in. and heavier	132.00 to	133.00
Low phos. 2 ft. and under	127.00 to	128.00
No. 1 RR hvy. melting	107.00 to	108.00
Scrap rails, random lgth.	107.00 to	108.00
Reroller rails	112.00 to	113.00
Rails, 2 ft. and under	126.00 to	127.00
RR couplers and knuckles	110.00 to	111.00
RR car axles	134.00 to	135.00
No. 1 machinery cast	117.00 to	118.00
Cupola cast	108.00 to	109.00
Stove plate	106.00 to	107.00
Steel car wheels	120.00 to	121.00
Stainless		
18-8 bundles and solids	555.00 to	565.00
18-8 turnings	455.00 to	465.00
430 bundles and solids	135.00 to	140.00
430 turnings	100.00 to	105.00

Philadelphia

No. 1 hvy. melting	$ 81.00 to	$ 84.00
No. 2 hvy. melting	71.00 to	74.00
No. 1 dealer bundles	104.00 to	107.00
No. 2 dealer bundles	57.00 to	60.00
No. 1 busheling	104.00 to	107.00
Shredder scrap	97.00 to	100.00
Machine shop turn.	29.00 to	32.00
Mixed bor. and turn.	29.00 to	32.00
Shoveling turnings	47.00 to	50.00
Low phos. 5 ft. and under	104.00 to	107.00
Low phos. 2 ft. punchings	120.00 to	123.00
Electric furnace bundles	114.00 to	117.00
RR specialties	106.00 to	109.00
Rails, 2 ft. and under	120.00 to	123.00
Cupola cast	72.00 to	75.00
Heavy breakable cast	57.00 to	60.00
No. 1 machinery cast	99.00 to	102.00

Detroit

Broker buying prices per gross ton on cars:

No. 1 hvy. melting	$ 65.00 to	$ 66.00
No. 2 hvy. melting	62.00 to	63.00
No. 1 dealer bundles	92.00 to	93.00
No. 2 bundles	44.00 to	45.00
No. 1 busheling	91.00 to	92.00
Drop forge flashings	62.00 to	63.00
Machine shop turn.	47.00 to	48.00
Mixed borings and turn.	28.00 to	29.00
Shoveling turnings	48.00 to	49.00
Cast iron borings	46.00 to	47.00
Heavy breakable cast	38.00 to	39.00
Mixed cupola cast	54.00 to	55.00
Automobile cast	77.00 to	78.00
Stainless		
18-8 bundles and solids	475.00 to	485.00
18-8 turnings	375.00 to	385.00
430 bundles and solids	120.00 to	130.00

Youngstown

No. 1 hvy. melting	$ 85.00 to	$ 88.00
No. 2 hvy. melting	67.00 to	70.00
No. 1 dealer bundles	100.00 to	103.00
No. 2 dealer bundles	37.00 to	40.00
Machine shop turn.	14.00 to	17.00
Shoveling turnings	19.00 to	22.00
Low phos. plate	97.00 to	100.00
Electric furnace bundles	93.00 to	97.00
Galvanized bundles	86.00 to	89.00

Cleveland

No. 1 hvy. melting	$ 76.00 to	$ 79.00
No. 2 hvy. melting	50.00 to	53.00
No. 1 dealer bundles	97.00 to	100.00
No. 1 factory bundles	97.00 to	100.00
No. 2 bundles	30.00 to	33.00
No. 1 busheling	95.00 to	98.00
Machine shop turn.	13.00 to	16.00
Mixed bor. and turn.	13.00 to	16.00
Shoveling turnings	15.00 to	18.00
Cast iron borings	18.00 to	21.00
Cut structural & plates, 2 ft. and under	119.00 to	122.00
Low phos. punchings plate	119.00 to	122.00
Drop forge flashings	62.00 to	65.00
Foundry steel, 2 ft. & under	70.00 to	75.00
No. 1 RR hvy melting	87.00 to	90.00
Rails, 2 ft. and under	122.00 to	125.00
Rails, 18 in. and under	123.00 to	126.00
Steel axle turnings	67.00 to	70.00
Railroad cast	100.00 to	103.00
No. 1 machinery cast	109.00 to	112.00
Cupola cast	63.00 to	66.00
Stove plate	48.00 to	51.00
Stainless		
18-8 bundles	375.00 to	385.00
18-8 turnings	325.00 to	335.00
430 bundles	80.00 to	85.00

Buffalo

Broker buying prices per gross ton on cars:

No. 1 hvy. melting	$ 76.00 to	$ 77.00
No. 2 hvy. melting	63.00 to	64.00
No. 1 busheling	89.00 to	90.00
No. 1 dealer bundles	89.00 to	90.00
No. 2 bundles	40.00 to	41.00
Machine shop turn.	15.00 to	16.00
Mixed bor. and turn.	13.00 to	14.00
Shoveling turnings	20.00 to	21.00
Cast iron borings	25.00 to	26.00
Low phos. plate	102.00 to	103.00
Structural and plate, 2 ft. and under	102.00 to	103.00
Rails, 2 ft. and under	97.00 to	98.00
Scrap rails, random lgth.	77.00 to	78.00
No. 1 machinery cast	79.00 to	80.00
No. 1 cupola cast	59.00 to	60.00

St. Louis

No. 1 hvy. melting	$ 78.00 to	$ 79.00
No. 2 hvy. melting	67.00 to	68.00
Foundry steel, 2 ft.	71.00 to	72.00
No. 1 dealer bundles	78.00 to	79.00
No. 2 bundles	65.00 to	66.00
Machine shop turn.	22.00 to	23.00
Shoveling turnings	29.00 to	30.00
Cast iron borings	33.00 to	34.00
No. 1 RR hvy. melting	84.00 to	85.00
Rails, random length	82.00 to	83.00
Rails, 18 in. and under	94.00 to	95.00
RR specialties	92.00 to	93.00
Cupola cast	74.00 to	75.00
Heavy breakable cast	53.00 to	54.00
Stove plate	88.00 to	89.00
Cast iron car wheels	57.00 to	58.00
Rerolling rails	90.00 to	91.00
Unstripped motor blocks	81.00 to	82.00

Birmingham

No. 1 heavy melting	$ 82.00 to	$ 83.00
No. 2 heavy melting	76.00 to	77.00
No. 1 dealer bundles	82.00 to	83.00
No. 2 bundles	57.00 to	58.00
No. 1 busheling	82.00 to	83.00
Shredder scrap	104.00 to	105.00
Machine shop. turn.	41.00 to	42.00
Shoveling turnings	50.00 to	51.00
Cast iron borings	50.00 to	51.00
Electric furnace bundles	75.00 to	76.00
Elec. furnace, 3 ft. & under	80.00 to	81.00
Structural and plate, 2 ft.	108.00 to	109.00
Structural and plate, 4 ft.	102.00 to	103.00
No. 1 RR hvy. melting	102.00 to	103.00
Scrap rails, random lgth.	95.00 to	96.00
Rails, 2 ft. and under	110.00 to	111.00
Angles and splice bars	102.00 to	103.00
No. 1 cupola cast	94.00 to	95.00
Unstripped motor blocks	74.00 to	75.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 70.00 to	$ 71.00
No. 2 hvy. melting	64.00 to	65.00
No. 1 dealer bundles	84.00 to	85.00
No. 2 bundles	41.00 to	42.00
Machine shop turn.	10.00 to	11.00
Shoveling turnings	12.00 to	13.00
Cast iron borings	28.00 to	29.00
Low phos. 18 in. and under	102.00 to	103.00
Rails, random length	83.00 to	84.00
Rails, 2 ft. and under	98.00 to	99.00
No. 1 cupola cast	73.00 to	74.00
Heavy breakable cast	37.00 to	38.00
Drop broken cast	89.00 to	90.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 50.00 to	$ 52.00
No. 2 hvy. melting	41.00 to	43.00
No. 2 dealer bundles	23.00 to	27.00
Mixed bor. and turn.	11.00 to	13.00
Machine shop turn.	6.00 to	7.00
Shoveling turnings	14.00 to	15.00
Clean cast. chem. borings	35.00 to	36.00
No. 1 machinery cast	89.00 to	90.00
Mixed yard cast	50.00 to	51.00
Heavy breakable cast	10.00 to	12.00
Stainless		
18-8 prepared solids	510.00 to	530.00
18-8 turnings	410.00 to	430.00
430 prepared solids	90.00 to	110.00
410 solids	80.00 to	90.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 68.00 to	$ 70.00
No. 2 hvy. melting	58.00 to	60.00
No. 1 dealer bundles	75.00 to	77.00
No. 2 bundles	39.00 to	41.00
No. 1 busheling	81.00 to	83.00
Shredder scrap	73.00 to	75.00
Machine shop turn.	14.00 to	16.00
Shoveling turnings	20.00 to	22.00
No. 1 machinery cast	90.00 to	95.00
Mixed cupola cast	48.00 to	50.00
Heavy breakable cast	18.00 to	20.00

San Francisco

No. 1 hvy. melting	$ 45.00 to	$ 47.00
No. 2 hvy. melting	39.00 to	41.00
No. 1 dealer bundles	35.00 to	37.00
No. 2 dealer bundles	17.00 to	19.00
Machine shop turn.	6.00 to	8.00
Cast iron borings	6.00 to	8.00
No. 1 cupola cast	83.00 to	85.00

Los Angeles

No. 1 hvy. melting	$ 48.00 to	$ 50.00
No. 2 hvy. melting	39.00 to	41.00
No. 1 dealer bundles	38.00 to	40.00
No. 2 dealer bundles	18.00 to	20.00
Machine shop turn.	10.00 to	12.00
Shoveling turnings	8.00 to	10.00
Cast iron borings	6.00 to	8.00
Elec. furnace, 1 ft. and under (foundry)	77.00 to	79.00
No. 1 cupola cast	77.00 to	79.00

Seattle

No. 1 hvy. melting	$ 71.00 to	$ 73.00
No. 2 hvy. melting	60.00 to	62.00
No. 2 bundles	42.00 to	44.00
No. 1 cupola cast	98.00 to	100.00
Mixed yard cast	85.00 to	87.00

Hamilton, Ont.

Brokers buying price per net ton on cars:

No. 1 heavy melting	$ 90.00
No. 2 heavy melting cut 2 ft. and under	87.00
No. 1 dealer bundles	87.00
No. 2 bundles	48.00
Mixed steel scrap	59.00
Bush. new fact. prep'd.	85.00
Bush. new fact. unprp'd.	75.00
Machine shop turn.	45.00
Short steel turn.	43.00
Mixed bor. and turn.	30.00
Cast scrap	73.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 81.00 to	$ 82.00
No. 2 hvy. melting	67.00 to	68.00
No. 2 bundles	44.00 to	45.00
Machine shop turn.	18.00 to	19.00
Crushed turnings	42.00 to	43.00
Shredder scrap	83.00 to	84.00
Cut structural plate, 2 ft. and under	103.00 to	105.00
Cut structural plate, 5 ft. and under	95.00 to	97.00
Unstripped motor blocks	60.00 to	61.00
Cupola cast	80.00 to	81.00

DURABLE ORDERS START TO SLIP

The economy is slowing down.

Fueled by the highly variable military sector, factory goods orders moved up 2.2 pct in March compared with February, the Commerce Department said. Without the 57.5 pct increase in orders for military equipment, orders overall would have been just about the same as February.

However, broken down more finely to durable goods and non-durable, the latter including petroleum and food products, durable goods orders in March declined 1.5 pct to $22.6 billion versus $27.0 billion in February, when the military spending is removed.

Commerce Department economist Robert Ortner said the drop in durable goods spending was expected after economic activities registered a robust 6.3 pct increase in February.

New orders for durable goods totaled $104.5 billion up about 2.2 pct over February's $102.3 billion. Metalcutting machine tools orders appeared healthy, rising about 10 pct to $146.5 million compared with $133.0 million in February and $89.6 million in March 1983. Metalforming tools orders, however, dropped about 12 pct to $62.0 million from $69.9 million in February, but were still almost double March 1983's figure of $35.9 million. Overall machine tools orders were $208.4 million compared with $202.9 million the preceding month and $125.5 million a year ago.

Steel new orders dropped for the second straight month, to $4.7 billion from $4.8 billion—a 2 pct falloff.

Excluding the unchanged categories—metalworking machinery and electrical transmission equipment and industrial apparatus—14 categories were up and 10 were down.

Mr. Ortner said the economy entered the second quarter at a more moderate pace than in the first. He said the government does not view the 1.5 pct drop in nonmilitary capital goods orders as a problem.

Billions of Dollars, Seasonally Adjusted Monthly Total, unless otherwise noted **Source: U.S. Dept. of Commerce**		Latest Month or Qtr.	Previous Month or Qtr.	Same Period Year Ago
CAPITAL EXPENDITURES (Annual Rates)				
U.S. Industry, Total	1st Qtr.	$332.7	$318.8	$293.0
Manufacturing, Total	1st Qtr.	124.7	116.4	109.9
Manufacturing, Durable Goods	1st Qtr.	59.2	54.9	50.7
Mining Industry	1st Qtr.	13.6	12.4	12.0
KEY INDICATORS, Durable Goods Manufacturing				
New Orders	Mar.	104.5	102.3	80.8
Shipments	Mar.	96.9	96.3	79.6
Inventories	Mar.	175.8	173.2	171.1
Unfilled Orders	Mar.	337.1	329.5	290.4
NEW ORDERS, METALWORKING				
Capital Goods Producers, Nondefense Industries	Mar.	26.6	27.0	20.8
Capital Goods Producers, Defense Industries	Mar.	11.5	7.3	7.7
Primary Metals, Total	Mar.	11.3	11.4	8.4
Steel (SIC 331)	Mar.	4.7	4.8	3.5
Iron & Steel Castings (SIC 332)	Mar.	1.4	1.3	0.7
Nonferrous Metals	Mar.	5.2	5.3	4.2
Nonelectrical Mach.-Equip. Industries, Total	Mar.	18.2	17.2	14.9
Engines & Turbines	Mar.	1.2	1.1	0.9
Farm Machinery & Equipment (Shipments)	Mar.	0.9	1.0	0.9
Construction, Mining & Mat. Hdlg. Equip.	Mar.	2.7	2.5	1.9
General Industrial Machinery	Mar.	1.3	1.4	1.0
Fluid Power Equipment** (Index-1972=100)	Mar.	343.0	318.0	217.0
Metalworking Machinery	Mar.	0.9	0.9	0.6
Machine Tools, Total ($ Mill., Unadjusted)***	Mar.	208.4	202.9	125.5
Machine Tools, Metalcutting***	Mar.	146.5	133.0	89.6
Machine Tools, Metalforming***	Mar.	62.0	69.9	35.9
Electrical Mach. & Equip. Industries, Total	Mar.	16.7	16.1	12.5
Elec. Transmission Equip. & Ind. Apparatus	Mar.	2.0	2.0	1.6
Household Appliances	Mar.	1.4	1.3	1.2
Communication Equipment	Mar.	5.5	5.0	4.3
Transportation Equip. Industrial, Total	Mar.	28.3	26.7	19.3
Motor Vehicles & Parts (Shipments)	Mar.	15.8	16.5	10.9
Aircraft, Missiles & Parts	Mar.	11.2	7.5	7.4
Shipbuilding & Military Tanks	Mar.	0.5	1.7	0.2
Fabricated Metal Products, Total	Mar.	11.0	11.4	9.4
Instruments, Total	Mar.	4.6	4.3	3.7

*Est.—Commerce Dept.; **Source: National Fluid Power Assn.; ***Source: NMTBA